



Dart Hawkesbury  
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada  
Tel (613) 632-5200

## Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Pa Dt
PO039318	MEC002-VU	1	1	Net 30	M7075T6S0.375X5.000	M7075T6S0.375 X 5.000 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				12	4/4/2018	12		S056423	Stock	3/29/2018	\$ 18.10 / ft	0	
		2			M7075T6S6.000X0.25	7075-T6S Sheet 6" Thick Plate X 0.25" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft						12		S056424	Stock	3/29/2018	\$ 20.75 / ft	0	
		4			M7075T6S1.000X7.000	7075-T6 Sheet 1" Thick Plate X 7" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft						12		S056425	Stock	3/29/2018	\$ 30.45 / ft	0	
		5			M7075T6S1.250X7.000	7075-T6 Sheet 1.25" X 7.000" Order Pre Cut To 50.00" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				33		33		S056426	Stock	3/29/2018	\$ 44.65 / ft	0	
Total:										69		69							

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Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# **PURCHASE ORDER** **PO039318**

**Supplier:** MEC002-VU  
Metaux Castle  
P.O. Box 4090 Stn A  
Toronto  
ON  
M5W OE9 Canada

**PO No:** PO039318

**PO Date:** 3/14/18

**Due Date:** 4/4/18

**Purchase Order  
Revision:**

**Revision Date:**

**Ship-To Contact:** Lavoie, Chantal  
clavoie@dartaero.com

**E-MAILED**

**MAR 14 2018**

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground

**Pymt Terms:** Net 30

**Freight Terms:**

**Special Comments:**

## Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	M7075T6S0.375X5.000		M7075T6S0.375 X 5.000 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	4/4/18	12 ft	0 ft	12 ft	\$18.10/ft	\$217.20
2	M7075T6S6.000X0.250		7075-T6S Sheet 6" Thick Plate X 0.25" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	4/4/18	12 ft	0 ft	12 ft	\$20.75/ft	\$249.00
3	M7075T6S1.750X4.500		M7075T6 Sheet 1.750 Thick X 4.500 Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	4/4/18	12 ft	0 ft	12 ft	\$48.90/ft	\$586.80

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
4	M7075T6S1.000X7.000		7075-T6 Sheet 1" Thick Plate X 7" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	4/4/18	12 ft	0 ft 12'	12 ft	\$30.45/ft	\$365.40
5	M7075T6S1.250X7.000		7075-T6 Sheet 1.25" X 7.000" Order Pre Cut To 50.00" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	4/4/18	33.333 ft	0 ft 33	33 ft	\$44.65/ft	\$1,488.32
Line Item Note 8 pcs cut at 50" = 33.3333 ft										
6	M7075T6S.160		7075-T6 Sheet .160 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive sf	Firmed	4/4/18	48 sf	0 sf	48 sf	\$13.729166/sf	\$659.00
Grand Total:										\$3,565.72

## Order Notes

## Procurement Quality Clauses

A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)  
A026 certification of material conformance  
A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

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Castle Metals®

A. M. Castle & Co.

PACKING SLIP/  
CERTIFICATE OF CONFORMANCE


Page 1 of 1

Shipment No:3552225

<b>Ship From:</b> A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
<b>Date Shipped</b> 27-MAR-18	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid		<b>Carrier</b> MANITOULIN	<b>BOL No</b> 3552225-2		

Shipment Details

Final Destination Branch - TOR

Order No	Line No	Item No	Description	Ordered Qty	Invoice Qty		
5077183	1	750067.MO	0.3750 PL. 7075, T651, ALUMINUM-48, 5000, 144, 5000 CUT 2-SIDED TO 5 IN ( + .1250/- .0000 IN) X 144.5 IN ( + .1250/- .0000 IN) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12	1.00 PCS	1.00 PCS		
<b>Purchase Order No</b> 39318							
<b>Part Number</b>							
<b>Details</b> ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX: HEAT #S Email P/s and cmts to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS							
<b>Delivery No.</b> 121704787	<b>Mill/Source</b>	<b>Heat Number</b>  243326B6	<b>Mech Id</b> 1	<b>PCS</b> 1	<b>Width (IN)</b>	<b>Length (IN)</b>	<b>Shipped Qty(LBS)</b> 28.3863

We hereby certify the material covered by this certification conforms in accordance with the above specification and has been found to meet the applicable requirements for the material, including any special marking a part of the inspection test reports are on file subject to examination. All claims for defective material are waived upon receipt in full by A. M. Castle & Co within 30 days of the shipment. Material out to the correct size, or material cut to the correct size, cannot be returned for credit.

Reviewed by: Authorized Castle Metals Representative

Date: MAR 27 2018

Name:



24041556



Castle Metals®

A. M. Castle & Co.

PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

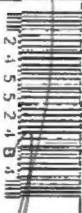
Page 1 of 1

Shipment No: 3552225

<b>Ship From:</b> A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
<b>Date Shipped</b> 27-MAR-18	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid		<b>Carrier</b> MANITOULIN		<b>BOL No</b> 3552225-2	

Shipment Details

Final Destination Branch - TOR

<b>Order No</b> 5077183	<b>Line No</b> 2	<b>Item No</b> 750023.MO	<b>Description</b> 0.2500 PL. 7075, T651, ALUMINUM 48.5000, 144.5000 CUT 2SIDED TO 6 IN ( + .1250/- .0000 IN) X 144.5 IN ( + .1250/- .0000 IN) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12				
<b>Purchase Order No</b> 39318	<b>Part Number</b>		<b>Ordered Qty</b> 1.00 PCS	<b>Invoice Qty</b> 1.00 PCS			
<b>Details</b> ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS							
<b>Delivery No.</b> 121687352	<b>Mill/Source</b>	<b>Heat Number</b> 	<b>Mech Id</b> 1	<b>PCS</b>	<b>Width (IN)</b>	<b>Length (IN)</b>	<b>Shipped Qty(LBS)</b> 22.8550

We hereby certify the material covered by this certification conforms in accordance with the above specifications and is found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless filed in writing to the manufacturer within 90 days of the date of receipt of the material. A copy of this certification shall be returned to the manufacturer by the customer.

Reviewed by Authorized Castle Metals Representative:

Date: Name:

MAR-27-





Castle Metals®

A. M. Castle & Co.

PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

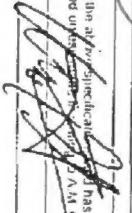
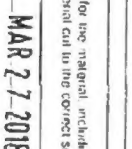
Page 1 of 1

Shipment No: 3552225

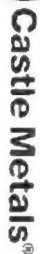
<b>Ship From:</b> A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		<b>Sold To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		<b>Ship To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		<b>Deliver To:</b> DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
<b>Date Shipped</b> 27-MAR-18	<b>F.O.B.</b> ORIGIN	<b>Freight Terms</b> Prepaid		<b>Carrier</b> MANITOU LIN		<b>BOL No</b> 3552225-2	

<b>Shipment Details</b>							
<b>Final Destination Branch - TOR</b>							
<b>Order No</b> 5077183	<b>Line No</b> 3	<b>Item No</b> 752188.MO	<b>Description</b> 1.0000.PL.7075.T651.ALUMINUM.USI.48.5000.144.5000 CUT 2SIDED TO 7 IN ( + .1250/.0000 IN) X 144.5 IN ( + .1250/.0000 IN) - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12				
<b>Purchase Order No</b> 39318	<b>Part Number</b>		<b>Ordered Qty</b> 1.00 PCS		<b>Invoice Qty</b> 1.00 PCS		
<b>Details</b> ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX: HEAT #'S Email P/s and certs to: clayoie@dataero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS							
<b>Delivery No.</b> 121704787	<b>Mill/Source</b>	<b>Heat Number</b> 9392368	<b>Mech Id</b> 1	<b>PCS</b>	<b>Width (IN)</b>	<b>Length (IN)</b>	<b>Shipped Qty(LBS)</b> 105.3288

We hereby certify the material covered by this certification conforms in accordance with the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on the subject to examination. All claims for defective material are waived unless made within 60 days of the shipment. Material not to the correct size or material not to the correct specification cannot be returned.

Reviewed by Authorized Castle Metals Representative:  Date: MAR 27 2018 Name: 





A. M. Castle & Co.

PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

Page 1 of 1

Shipment No:3552225

Final Destination Branch - TOR

## Details

ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY  
ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S  
Email P/s and certs to: [clavoie@dartaero.com](mailto:clavoie@dartaero.com)  
END USER: DART AEROSPACE  
END USE: COMMERCIAL AIRCRAFT PARTS

Heat Number  
9408934

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Materials Testing Laboratory

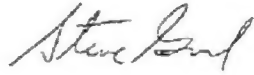
Constellium Rolled Products  
Ravenswood, LLC

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A M CASTLE & CO.  
14001 ORANGE AVE.  
PARAMOUNT CA  
90723  
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A M CASTLE  
1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE		110606831		4075		INCLUSION		Serial:20180104-0110606831		Pg 1of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 448875						Constellium ORDER NO. 228501					
ALLOY 7075		CLAD		TEMPER T651		GAUGE 1.25000 in 31.75 mm		WIDTH 48.50000 in 1,232 mm		LENGTH 144.50000 in 3,670 mm	
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752114				B/L NUMBER 92452				DATE SHIPPED 01/04/2018			
WT. SHIPPED 5340.000 LB				NO. OF PIECES 000005				GOVT. CONTRACT NO.			
CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA   Steve Good - Laboratory Manager											

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM B594 REV 13 2013 100% SONIC W/ 0.125" DEADZONE Class A  
AMS QQ-A-250/12A  
AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE  
ASTM B209-14  
BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE  
CSTI006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE  
DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE  
GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE  
PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE



Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001681411	890.000	403.697	9408934	01		
1001681411	890.000	403.697	9408934	02		
1001681411	890.000	403.697	9408934	03		
1001681412	890.000	403.697	9408935	01		
1001681412	890.000	403.697	9408935	02		
1001681412	890.000	403.697	9408935	03		

Lot: 9408934

Tensile - Room Temperature (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	79.5	79.9	70.1	70.3	12.5	13.0	





Materials Testing Laboratory

Constellium Rolled Products  
Ravenswood, LLC

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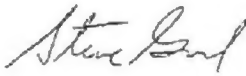
A M CASTLE & CO.

14001 ORANGE AVE.  
PARAMOUNT CA  
90723  
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A M CASTLE

1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

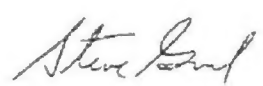
A M CASTLE		110606831		4075		INCLUSION		Serial:20180104-0110606831		Pg 2of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 448875						Constellium ORDER NO. 228501					
ALLOY 7075		CLAD		TEMPER T651		GAUGE 1.25000 in 31.75 mm		WIDTH 48.50000 in 1,232 mm		LENGTH 144.50000 in 3,670 mm	
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752114				B/L NUMBER 92452				DATE SHIPPED 01/04/2018			
WT. SHIPPED 5340.000 LB				NO. OF PIECES 000006				GOVT. CONTRACT NO.			
CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA   Steve Good - Laboratory Manager											
Tensile - Room Temperature (SI)											
		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report			
Direction	Tests	Min	Max	Min	Max	Min	Max				
LT	02	548	551	483	485	12.5	13.0				
Chemistry (Actual)											
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR		
Core	0.07	0.15	1.40	0.04	2.59	0.22	5.43	0.04	0.00		
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER											
All material contained in this lot was cast and manufactured in the USA											
Lot: 9408935											
Tensile - Room Temperature (US)											
		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report			
Direction	Tests	Min	Max	Min	Max	Min	Max				
LT	02	80.7	80.7	71.1	71.4	12.5	13.0				
P-860-155D REVISED: 10 2014											

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14001 ORANGE AVE.  
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A M CASTLE  
1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE		110606831		4075		INCLUSION		Serial:20180104-0110606831		Pg 3of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 448875						Constellium ORDER NO. 228501					
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.25000 in 31.75 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm		<b>CERTIFICATION</b> "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA    Steve Good - Laboratory Manager				
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752114			B/L NUMBER 92452		DATE SHIPPED 01/04/2018						
WT. SHIPPED 5340.000 LB		NO. OF PIECES 000006		GOVT. CONTRACT NO.							
Tensile - Room Temperature (SI)											
		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report			
Direction	Tests	Min	Max	Min	Max	Min	Max				
LT	02	556	556	490	492	12.5	13.0				
Chemistry (Actual)											
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR		
Core	0.07	0.15	1.40	0.04	2.59	0.22	5.43	0.04	0.00		
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER											
All material contained in this lot was cast and manufactured in the USA											
QUALITY TEXTS: AMC CA-15403A R 7											
THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. CHEMISTRY BY OES: ARKSPARK CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399 WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557 DUNS Number: 090570149; CAGE Code: 1YW19 Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product. "END OF CERTIFICATION"											
P-860-155D REVISED: 10 2014											



**Constellium**



**CERTIFIED TEST REPORT**  
Constellium Rolled Products  
Ravenswood, LLC

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O

A M CASTLE & COMPANY

4175 ROYAL DRIVE  
KENNESAW GA  
30144  
US

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A M CASTLE

1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE		110550666		4075		INCLUSION		Serial: 20170703-0110550666		Pg 1 of 3	
CUSTOMER PURCHASE ORDER NO. & ITEM 426116						Constellium ORDER NO. 209343			<b>CERTIFICATION</b> "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA    Steve Good - Laboratory Manager		
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.00000 in 25.40 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm						
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752188			B/L NUMBER 83324		DATE SHIPPED 07/03/2017						
WT. SHIPPED 4320.000 LB		NO. OF PIECES 000006		GOVT. CONTRACT NO.							

**ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:**

ASTM B594 REV 13 2013 100% SONIC W/ 0.125" DEADZONE Class A  
 AMS QQ-A-250/12A  
 AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE  
 ASTM B209-14  
 BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE  
 CST1006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE  
 DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE  
 GAMPs 9101 REV B 2005 CLASS A 100% SONIC MINUS DEADZONE  
 PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

**Load Details**

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001556284	720.000	326.586	9392367	01		
1001556284	720.000	326.586	9392367	02		
1001556284	720.000	326.586	9392367	03		
1001556285	720.000	326.586	9392368	01		
1001556285	720.000	326.586	9392368	02		
1001556285	720.000	326.586	9392368	03		

**Lot: 9392367**

**Tensile - Room Temperature (US)**

		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	82.6	82.9	73.7	73.9	12.5	13.0	



**Constellium**



**CERTIFIED TEST REPORT**  
Constellium Rolled Products  
Ravenswood, LLC

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A M CASTLE & COMPANY

4175 ROYAL DRIVE  
KENNESAW GA  
30144  
US

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O

A M CASTLE

1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE 110550666 4075 INCLUSION Serial:20170703-0110550666 Pg 2of3

CUSTOMER PURCHASE ORDER NO. & ITEM  
426116

Constellium ORDER NO.  
209343

**CERTIFICATION**

"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."  
Constellium Rolled Products Ravenswood, LLC  
859 Century Road  
P.O. BOX 68  
RAVENSWOOD, WV 26164 USA

ALLOY	CLAD	TEMPER	GAUGE	WIDTH	LENGTH
7075		T651	1.0000 in 25.40 mm	48.5000 in 1,232 mm	144.5000 in 3,670 mm

ITEM ORDERED  
SPEC PLATE, SAWED  
MILL FINISH

CUSTOMER SPECIFICATION  
AMS 4045K

PART NUMBER	B/L NUMBER	DATE SHIPPED
752188	83324	07/03/2017

WT. SHIPPED	NO. OF PIECES	GOVT. CONTRACT NO.
4320.000 LB	000005	

Steve Good - Laboratory Manager

**Tensile - Room Temperature (SI)**

		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	570	572	508	510	12.5	13.0	

**Chemistry (Actual)**

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.05	0.12	1.48	0.03	2.62	0.22	5.56	0.03	0.00

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

**Lot: 9392368**

**Tensile - Room Temperature (US)**

		Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	81.9	83.1	72.1	73.6	13.0	14.5	



**Constellium**



**CERTIFIED TEST REPORT**  
Constellium Rolled Products  
Ravenswood, LLC

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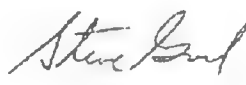
A M CASTLE & COMPANY

4175 ROYAL DRIVE  
KENNESAW GA  
30144  
US

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A M CASTLE

1420 KENSINGTON ROAD, SUITE 220  
OAK BROOK IL  
60523  
US

A M CASTLE		110550666		4075		INCLUSION		Serial:20170703-0110550666		Pg 3of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 426116						Constellium ORDER NO. 209343					
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.00000 in 25.40 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	<b>CERTIFICATION</b> "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA   Steve Good - Laboratory Manager					
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752188			B/L NUMBER 83324		DATE SHIPPED 07/03/2017						
WT. SHIPPED 4320.000 LB		NO. OF PIECES 000006		GOVT. CONTRACT NO.							

Tensile - Room Temperature (SI)								Report	
		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)			
Direction	Tests	Min	Max	Min	Max	Min	Max		
LT	02	565	573	497	507	13.0	14.5		

**Chemistry (Actual)**

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.05	0.12	1.48	0.03	2.62	0.22	5.56	0.03	0.00

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

QUALITY TEXTS:  
AMC CA-15403 R 8

THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CHEMISTRY BY OES: ARKSPARK

CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT

WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399

WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8: B557

DUNS Number: 090570149; CAGE Code: 1YWL9

Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.

"END OF CERTIFICATION"

## SHIP TO:

A M CASTLE & CO  
14001 ORANGE AVE  
P.O. BOX 1402  
PARAMOUNT, CA 90723

# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## SOLD TO:

AM CASTLE & CO- SOLD TO  
1420 KENSINGTON RD  
SUITE 220  
OAK BROOK, IL 60523

## CERTIFIED TEST REPORT

Serial Number

4493592

CUSTOMER PO NUMBER: 448135-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 750023	SHIP RUN/LOAD: 104155/15	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1248439-1	SHIP DATE: 13-JAN-2015	ALLOY: 7075	CLAD: BARE	TEMPER: T651
PRODUCT DESCRIPTION: Sawed Plate				
WEIGHT SHIPPED: 3231 LB	QUANTITY: 18 PCS EST.	TRUCK B/L #: 2071285	GAUGE: 0.2500 IN ( 6.3500 MM)	DIAMETER/WIDTH: 48.500 IN (1231.6 MM)
LENGTH: 144.500 IN (3670.3 MM)				

MHU 2188858: LOT 24552484: 18 pieces;

## Certified Specifications

AMS 4045/RevL  
CMMP 025/RevV

AMS-QQ-A-250/12/RevA

ASTM B 209/Rev14

Test Code: T312

Lot: 24552484

Cast 571

Drop 12

## Test Results

Ingot 2

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile: Temper  
T651

Dir / # Tests  
LT / 2 (Min:Max)

Ultimate KSI (MPa)  
86.1 : 86.1  
(594 : 594)

Yield KSI (MPa)  
76.6 : 76.7  
(528 : 529)

Elongation %  
11.7 : 12.6

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.06	0.17	1.4	0.04	2.6	0.20	5.7	0.03	0.01	0.01	TOT 0.03

## ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

## ORDER COMMENTS

AMC CA-15409 R 3





Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4493592

### CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

- has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
- All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
- was melted in the United States of America or a qualifying country per DFARS 225.672-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
- has been thermally processed in compliance with AMS 2772, where applicable.
- is mercury free, within the limits of detection of ASTM E1215 (<1ppm).
- is in compliance with RoHS 2, European Union Directive 2011/65/EU.
- is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
- is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
- is free of weld repair.
- meets the reporting requirements of EN: 0204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER



## SHIP TO:

A M CASTLE & CO  
3050 SOUTH HYDRAULIC  
WICHITA, KS 67216

# KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## SOLD TO:

AM CASTLE & CO- SOLD TO  
1420 KENSINGTON RD  
SUITE 220  
OAK BROOK, IL 60523

## CERTIFIED TEST REPORT

Serial Number  
4488284

CUSTOMER PO NUMBER: 442851-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 750067	SHIP RUN/LOAD: 104118/9	GOVT CONTRACT NUMBER:
KAISER ORDER NO: 1245835-1	SHIP DATE: 3-DEC-2017	ALLOY: 7075	CLAD: BARE	TEMPER: T651
PRODUCT DESCRIPTION: Sawed Plate				
WEIGHT SHIPPED: 3226 LB	QUANTITY: 12 PCS EST.	TRUCK B/L #: 2070527	GAUGE: 0.3750 IN (9.5250 MM)	DIAMETER/WIDTH: 48.500 IN (1231.9 MM)
LENGTH: 144.500 IN (3670.3 MM)				

MHU 2175452: LOT 24332686: 12 pieces;

## Certified Specifications

AMS 4045/RevL  
CMMP 025/RevV

AMS-QC-A-250/12/RevA

ASTM B 209/Rev14

Test Code: 1512

Lot: 24332686

Cast 540

Drop 97

## Test Results

Ingot 2

Melted in USA

(ASTM E8/E8557)

(EN 2002-1)

Tensile: Temper  
T651

Dir / # Tests  
LT / 3 (Min:Max)

Ultimate KSI (MPa)  
85.4 : 86.9  
(589 : 599)

Yield KSI (MPa)  
76.2 : 77.7  
(525 : 536)

Elongation %  
11.5 : 13.3

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.07	0.14	1.5	0.03	2.6	0.19	5.8	0.02	0.01	0.01	TOT 0.03

## ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

## ORDER COMMENTS

AMC CA-15409 R 3





Trentwood Works - Spokane, WA 99215  
Phone: (800) 367-2586

## CERTIFIED TEST REPORT

Serial Number  
4488284

### CERTIFICATION

- Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
  - All test equipment and measuring devices are calibrated and certified in accordance with applicable specifications. For materials thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
  - was melted in the United States of America or a qualifying country per DPAFS 225.672-ital, was manufactured in the United States of America, and meets the requirements of DPAFS 252.225 for domestic content.
  - has been internally processed in compliance with AMS 2772, where applicable.
  - is mercury free, within the limits of detection of ASTM E1215 (41ppm).
  - is in compliance with RoHS 2, European Union Directive 2011/65/EU.
  - is in compliance with European Chemicals Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
  - is free of Conflict Minerals, as defined in Section 15.2 of the Dodd Frank Act.
  - is free of weld repair.
  - meets the recording requirements of EN10204, Type 3.1.
- Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum Laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: 1920754651.250x7.000

PO / BATCH NO.: 039318/5056426

DATE: MAR 29 2018

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 33P12  
 QUANTITY INSPECTED: 33P12  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.250  
 THICKNESS RECEIVED: 1.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORROSION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>AMS 4045</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
PHOTO REQUIRED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>Heat # 9408934</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u> <u>11</u>		SIGNED OFF BY: _____	
DATE: <u>9-89 MAR 29 2018</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

B PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE  
 SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12  
 OR AMS 4045  
 OR ASTM B209

OR

B PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE  
 SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13  
 OR AMS 4048 / 4049  
 OR ASTM B209

B PART NUMBER: M7075T6S | TTT | X | W.WWWW |  
 | THK | | WIDTH |

B WHERE "TTT" = THICKNESS (IN INCHES)  
 AND "W.WWWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M7075T6S.063  
 EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

B PREFERRED SIZE: .TTT BY 4FT BY 10FT FOR SHEET

RELEASED

2017 JUN 19  
ECN 17-574

APPROVED

B	ADD REF TO "PLATE" T651 TEMPER AMS 4048, OPTIONAL WIDTH DIM (CAR16-149)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD	
DRAWN	CP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ML	DRAWING NO.	REV. B
MFG. APPR.	LL	M7075T6S	SHEET 1 OF 1
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	7075-T6 SHEET/PLATE SPEC	NTS
DATE	17.05.05	COPYRIGHT © 2010 BY DART AEROSPACE LTD ALL RIGHTS RESERVED. NO PART OF THIS DOCUMENT MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.	

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M70757651.000X7.000

PO / BATCH NO: 039318/5056425

DATE: MAR 29 2018

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000  
 THICKNESS RECEIVED: 1.000  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	Am 5 4045
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	Heat # 9392362
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

*testers located in the Quality Office*

<b>QC 18 INSPECTION</b>		<b>ENGINEERING SIGNOFF (if required)</b>	
INSPECTED BY: <u>DAS</u> <u>11</u>	SIGNED OFF BY: _____		
DATE: <u>9-8 MAR 29 2018</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

**SPECIFICATION CONTROL DRAWING**

**A** PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE  
SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12  
OR AMS 4048  
OR ASTM B209

OR

**A** PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE  
SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13  
OR AMS 4048 / 4049  
OR ASTM B209

**A** PART NUMBER: M7075T6S | TTT | X | W.WWWW |  
| THK | | WIDTH |

**A** WHERE "TTT" = THICKNESS (IN INCHES)  
AND "W.WWWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)  
EG. 0.063" THICK SHEET = M7075T6S.063  
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

**A** PREFERRED SIZE: .TTT BY 4FT BY 10FT FOR SHEET

**RELEASED**

2017 JUN 19 09  
ECN 17-574

APPROVED

B	ADD. REF. TO "PLATE" * T651* TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CAR16-149)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DS		
DATE	17.05.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M7075T6S			
REV. B			
SHEET 1 OF 1			
TITLE 7075-T6 SHEET/PLATE SPEC NTS			
SCALE			
COPYRIGHT © 2010 BY DART AEROSPACE LTD			
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. NO DISSEMINATION OF THIS DOCUMENT IS PERMITTED WITHOUT THE EXPRESS WRITTEN PERMISSION OF DART AEROSPACE LTD.			

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7075+696-000X0250

PO / BATCH NO.: 037318/5056424

DATE: MAR 29 2018

MATERIAL CERT REC'D: YES  
 QUANTITY RECEIVED: 12  
 QUANTITY INSPECTED: 12  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.250  
 THICKNESS RECEIVED: 0.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	<u>AMS-QQ-A-250/12</u>
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	<u>Heat # 245524B4</u>
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.  
 RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u> <u>11</u>		SIGNED OFF BY: _____	
DATE: <u>9-89 MAR 29 2018</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



# SPECIFICATION CONTROL DRAWING

**PURCHASE MATERIAL:** 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE  
**SPECIFICATION:** QQ-A-250/12 OR AMS-QQ-A-250/12  
OR AMS 4045  
OR ASTM B209

OR

**PURCHASE MATERIAL:** 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE  
**SPECIFICATION:** QQ-A-250/13 OR AMS-QQ-A-250/13  
OR AMS 4048 / 4049  
OR ASTM B209

**PART NUMBER:** M7075T6S | TTT | X | W.WWW |  
| THK | | WIDTH |

WHERE "TTT" = THICKNESS (IN INCHES)  
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)  
EG. 0.063" THICK SHEET = M7075T6S.063  
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

**PREFERRED SIZE:** .TTT BY 4FT BY 10FT FOR SHEET

RELEASED  
2017 JUN 19  
ECN 17-574

B	ADD REF TO PLATE: T651+TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CART-145)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DS		
DATE	17.05.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. M7075T6S REV. B SHEET 1 OF 1 TITLE 7075-T6 SHEET/PLATE SPEC NTS SCALE			
COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DRAWING IS UNCLASSIFIED AND IS NOT TO BE RELEASED OR DISCLOSED TO THE PUBLIC UNLESS IT IS FIRST REVIEWED BY DART AEROSPACE LTD			

APPROVED

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M70254650.375X5.000

PO / BATCH NO.: 039318/5056423

DATE: MAR 29 2018

MATERIAL CERT REC'D: yes

THICKNESS ORDERED: 0.375

QUANTITY RECEIVED: 12'

THICKNESS RECEIVED: 0.375

QUANTITY INSPECTED: 12'

SHEET SIZE ORDERED: N/A

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	AME QQ-A-250/12
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	Heat # 243326B6
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

<b>QC 18 INSPECTION</b>		<b>ENGINEERING SIGNOFF (if required)</b>	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>9-8 MAR 29 2018</u>	DATE: _____		

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# SPECIFICATION CONTROL DRAWING

B PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE

SPECIFICATION: ~~QQ-A-250/12~~ OR ~~AMS-QQ-A-250/12~~  
OR AMS 4045  
OR ASTM B209

OR

B PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE

B SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13  
OR AMS 4048 / 4049  
OR ASTM B209

B PART NUMBER: M7075T6S | TTT | X | W.WWW |  
| THK | | WIDTH |

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B PREFERRED SIZE: .TTT BY 4FT BY 10FT FOR SHEET

RELEASED

2017 JUN 19  
ECN 17-574

APPROVED

B	ADD. REF TO "PLATE", "T651" TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CAR16-149)	CP	17.05.05
A	NEW ISSUE	RF	10.11.09
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	CP	
DRAWN			
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DS		
DATE	17.05.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M7075T6S			
REV. B SHEET 1 OF 1			
TITLE 7075-T6 SHEET/PLATE SPEC NTS			
SCALE			
DATE 17.05.05			
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